

## TECANAT® black - Stock Shapes (rods, plates, tubes)

### Chemical Designation

PC (Polycarbonate)

### Colour

black

### Density

1.19 g/cm<sup>3</sup>

### Main features

- excellent impact strength
- excellent strength and stiffness
- excellent dimensional stability
- good machinability

### Target Industries

- aircraft and aerospace technology
- food processing
- packaging and paper machinery

Mechanical properties	condition	value	test method	comment
Modulus of elasticity (tensile test)	@ 73 °F	320,000	psi	ASTM D 638
Tensile strength at yield	@ 73 °F	9,000	psi	ASTM D 638
Elongation at break (tensile test)	@ 73 °F	50	%	ASTM D 638
Flexural strength	@ 73 °F	13,000	psi	ASTM D 790
Modulus of elasticity (flexural test)	@ 73 °F	305,000	psi	ASTM D 790
Compression strength	@ 1% strain, 73 °F	2,900	psi	ASTM D 695
Compression strength	@ 10% strain, 73 °F	12,000	psi	ASTM D 695
Compression modulus	@ 73 °F	295,000	psi	ASTM D 695
Impact strength (Izod)	@ 73 °F	1.25	ft-lbs/in	ASTM D 256
Rockwell hardness	@ 73 °F M Scale (R Scale)	70 (120)		ASTM D 785
Thermal properties	condition	value	test method	comment
Vicat softening point		309	°F	ASTM D 1525 1)
Deflection temperature	@ 264 psi	270	°F	ASTM D 648 2)
Service temperature	Intermittent	275	°F	-
Service temperature	Long Term	250	°F	- 3)
Electrical properties	condition	value	test method	comment
volume resistance		1.0*10 <sup>16</sup>	Ω*cm	ASTM D 257 1)
Dielectric strength		378	V/mil	ASTM D 149 2)
Other properties	condition	value	test method	comment
Moisture absorption	@ 24 hrs, 73 °F	0.08	%	ASTM D 570 1)
Flammability (UL94)		HB	-	2) (1) Injection molded data (2) @ 1.50 mm thickness Injection molded data

- Resin specification:  
ASTM D3935-09 PC0150B34840
- Shapes specification:  
ASTM D6098-10 S-PC0111

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